

EXPRESS MAIL NO.

METHOD AND SYSTEM FOR PROCESSING NETWORK DATA PACKETS

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ABSTRACT OF THE DISCLOSURE

A system for transmitting and receiving TCP/IP data packets using a hardware engine is provided. The system includes an inbound MAC Receive state machine for processing MAC frames 10 received from a network; an inbound IP verifier state machine for verifying IP packet headers; an inbound IP fragment processing state machine for processing and reassembling IP fragments; and an inbound TCP state machine for processing TCP segments received from an IP layer. The system also includes 15 an outbound MAC Transmit state machine that sends MAC frames to a network; an outbound IP state machine that processes IP data to be passed to a MAC layer for transmission; and an outbound TCP state machine that processes TCP data to be passed to the IP layer for transmission.

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